IN THE CLAIMS:

Please cancel claims 39 and 58.

Please amend the claims to read as indicated herein.

1-37. (Cancelled)

38. (Currently amended) A method for a printer linked to a computing device to update microcode of said printer comprising the steps of:

receiving from said computing device one or more files across an interface suitable for conveying information to be printed by said printer, wherein at least one of said files is a print job file comprising an embedded microcode module, said module being one of a plurality of modules in said print job file;

recognizing if a received file is a print job file and if a received print job file ~~includes said~~ comprises an embedded microcode module, else if a received print-job file does not include a microcode module, then normally processing said print-job file; and

writing at least one microcode module received in a print job file to a memory area in said printer indicated in said print job file,

wherein said print job file further comprises a file header portion and a separate file data portion, and wherein presence of a microcode module in said print job file is indicated by a bit pattern in said file header portion of said print job file.

39-40. (Canceled)

41. (Previously presented) The method of claim 38, wherein said step of receiving further comprises downloading said module to volatile memory.

42. (Previously presented) The method of claim 38, wherein said step of writing to a memory area further comprises writing to a non-volatile memory area.

43. (Previously presented) The method of claim 38, wherein said microcode module includes an executable program, said executable program being machine language code executable by a processor in said printer.

44. (Previously presented) The method of claim 43, further comprising, after said step of writing, the step of transferring execution to said executable program, without resetting or restarting any processor in said printer.

45. (Previously presented) The method of claim 44, wherein after said step of transferring, said executable program returns execution to a previously running program.

46. (Cancelled)

47. (Previously presented) The method of claim 44, wherein said step of transferring comprises first loading said executable program in to execution memory.

48. (Previously presented) The method of claim 44, wherein after said step of transferring, said executable program acts to download the remainder of said print job file to said printer.

49. (Previously presented) The method of claim 48, wherein said step of downloading comprises passing pointers to said executable program.

50. (Previously presented) The method of claim 38, wherein said module further comprises a module header and module data.

51. (Previously presented) The printer job file of claim 50, wherein said module header comprises a bit pattern that directs a processor in said printer to uncompress said module.

52. (Previously presented) The method of claim 50, wherein said module header comprises a data field for specifying a destination storage location for said module.

53. (Previously presented) The method of claim 52, wherein said module header comprises a bit pattern that directs a processor in said printer to create a file specified by said data field.

54. (Previously presented) The method of claim 52, wherein said module header comprises a bit pattern that directs a processor in said printer to delete a file specified by said data field.

55. (Previously presented) The method of claim 52, wherein said module header comprises a bit pattern that directs a processor in said printer to create a directory specified by said data field.

56. (Previously presented) The method of claim 52, wherein said module header comprises a bit pattern that directs a processor in said printer to delete a directory specified by said data field.

57. (Currently amended) An apparatus for updating microcode comprising;

a computing device comprising a program for composing and downloading a print job file;

a printer comprising a printer processor, a printer memory having stored microcode, and a printing engine; and

an interface linking said computing device and said printer and suitable for conveying information to be printed by said printer;

wherein said program controls causes said computing device

to compose a print job file having an embedded microcode module, and

to download said composed print job file to said printer across said interface, and

wherein said microcode controls said printer

to receive from said computing device across said interface said print job file comprising an embedded microcode module,

to recognize that said received print job file comprises an embedded microcode module, and

to write said embedded microcode module to a memory area in said printer indicated in said print job file, and

wherein said print job file further comprises a print job file header and a separate print job file data, wherein presence of a microcode module in said print job file is indicated by a bit pattern in a header portion of said print job file.

58. (Cancelled)

59. (Previously presented) The apparatus of claim 57, wherein said print job file further comprises a module comprising a module header and module body, wherein said module body comprises said microcode.

60. (Previously presented) The apparatus of claim 58, wherein said print job file header further comprises a bit pattern that represents an indication of a destination printer.

61. (Previously presented) The apparatus of claim 58, wherein said print job file header further comprises a bit pattern that indicates that said microcode module is to be immediately executed by said printer.

62. (Cancelled)

63. (Previously presented) The apparatus of claim 61 wherein said print job file comprises a plurality of modules, wherein said print job file header further comprises a bit pattern that indicates that said print job file includes microcode that is to be immediately executed, and wherein upon execution said microcode acts to download the remainder of said print job to said printer.

64. (Previously presented) The apparatus of claim 59 wherein said module header comprises a bit pattern that directs said printer to uncompress said module.

65. (Previously presented) The apparatus of claim 59 wherein said module header comprises a data field for specifying a destination storage location for said module.

66. (Previously presented) The apparatus of claim 65 wherein said module header comprises a bit pattern that directs said printer to create a file specified by said data field.

67. (Previously presented) The apparatus of claim 65 wherein said module header comprises a bit pattern that directs said printer to delete a file specified by said data field.

68. (Previously presented) The apparatus of claim 65 wherein said module header comprises a bit pattern that directs said printer to create a directory specified by said data field.

69. (Previously presented) The apparatus of claim 65 wherein said module header comprises a bit pattern that directs said printer to delete a directory specified by said data field.

70. (Currently amended) A computer readable medium for updating microcode of a printer from a computing device, said computer readable medium comprising encoded instructions that direct said printer:

to receive from said computing device one or more files across an interface suitable for conveying information to be printed by said printer, wherein at least one of said files is a print job file comprising an embedded microcode module;

to recognize if a received file is a print job file and if a received print job file comprises an embedded microcode module, else if a received print-job file does not include a microcode module, then normally processing said print-job file; and

to write at least one microcode module received in a print job file to a memory area in said printer indicated in said print job file,

wherein said print job file comprises a print job file header portion and a print job file data portion, and wherein said print job file header portion further comprises a bit pattern indicating whether said print job file includes said microcode module.

71. (Previously presented) The computer readable medium of claim 70, wherein said print job file includes a microcode module that is immediately executable by said printer.

72. (Cancelled)

73. (Currently amended) The computer readable medium of claim 71, wherein said microcode module, upon completion of its immediate execution, returns to a previously running program.

74. (Currently amended) The computer readable medium of claim 71, ~~wherein said print job file comprises a print job file header portion and a print job file data portion,~~ wherein said print job file data portion further comprises a plurality of modules,

wherein said ~~print job file header portion further comprises a bit pattern indicating whether said print job file~~microcode module includes immediately executable microcode that acts to download the remainder of said print job to said printer.

75. (Previously presented) The method of claim 50, wherein said module data is compressible.

76. (Previously presented) The method of claim 38 further comprising:

composing a print job file comprising an embedded microcode module; and

sending send composed print job file to said printer from said computing device across an interface suitable for conveying information to be printed by said printer.